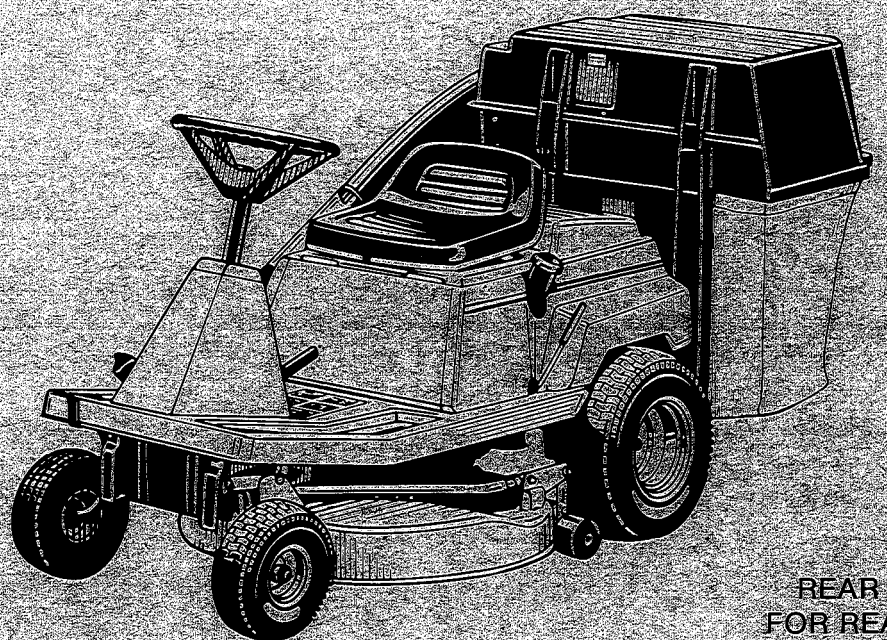


OPERATOR'S MANUAL REAR GRASS CATCHER



REAR GRASS CATCHER
FOR REAR-ENGINE RIDER

30" MOWER

MFG. NO. 1690822

36" MOWER

MFG. NO. 1690820

FORM - 1672367

PRINTED IN U.S.A.

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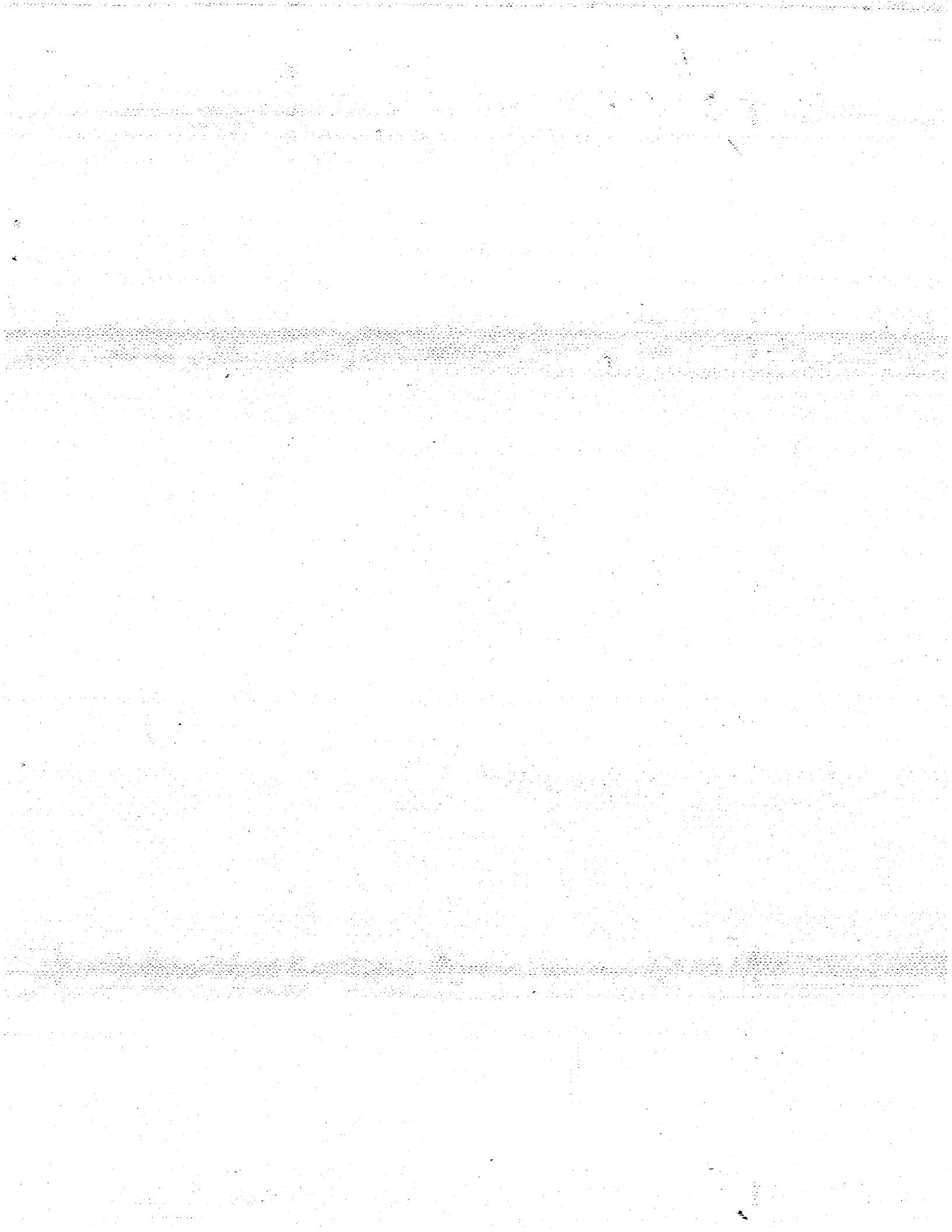


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Specifications

Height (Top of Cover to Bottom of Bag): 35 In.
Width (Overall of Cover): 35.5 In.
 (Left Side of Tractor to Extreme
 Right Side of Grass Catcher): 45 In.
**Length (Center of Rear Tire to Back Edge
 of Cover):** 31.5"
Ground Clearance (To Bottom of Bag): 5.0"
Capacity: 6.5 Bushels

Front Counterweight


Always use front counterweight with grass catcher.
 Never operate on slopes greater than 30% (16.7°).

Common Replacement Parts

Name	Part No.
Grass Bag	1672346
Protective Strip (top of grass bag)	1675707
Carriage Bolt, Frame-to- Drawbar	1921158
Wing Nut, Frame-to-Drawbar	933126
Blade, Left-Hand (36" Mower)	1671593
Blade, Right Hand (36" Mower)	1671565
Lifts, Blade (30" Mower)	1665419
Discharge Tube (36" Mower)	1673683
Discharge Tube (30" Mower)	1673681
Pin, Cover	1672344
Clip, Cover Pin	1960074
Rubber Strap	1665872

Safety Rules



Read these safety rules and the safety rules in your Operator's Manual and follow them closely. Failure to obey these rules could result in loss of control of vehicle, severe personal injury to yourself, or damage to property or equipment. The triangle  in the text signifies important cautions or warnings which must be followed.

ATTENTION SETUP PERSONNEL:

As setup personnel you have the obligations to know the product better than the customer. This includes safety related items. Prior to setup, thoroughly familiarize yourself with the Operator's Manual. Pay special attention to all safety warnings. Remember, it is your responsibility to set up the product safely and to know it well enough to be able to instruct a customer in the safe use of this power unit.

It is possible during setup to place yourself in a position which is more hazardous than when the unit is in operation. Safety is a matter of common sense . . . A matter of thinking before acting. Most shops have specific safety practices. Follow them. The precautions listed in the Operator's Manual should not supersede existing practices but should be considered as supplemental information.

1. Know the controls and how to stop the tractor quickly. **READ THE TRACTOR'S OWNER'S MANUAL.**
2. Shut the engine (motor) off before attaching, adjusting or disconnecting the collection system.
3. Check the grass catcher frame to make sure it is attached securely to tractor.
4. Look behind to make sure the area is clear before backing up.



WARNING

Do not operate the tractor unless the entire grass catcher system or mower discharge deflector is properly installed.

CAUTION:

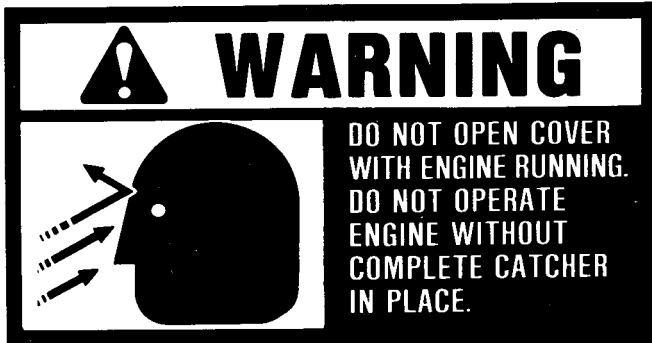
5. For added tractor stability and to prevent tipping or loss of control;
 - a. DO drive in reduced speed on uneven ground and when turning corners.
 - b. Reduce loads on hillsides. It is recommended that the Collection System be kept only half full when negotiating any slopes. Start mowing on slopes when the Collection System is empty.
 - c. Mow up and down the face of slopes: **never across the face of any slope.**
6. **CAUTION:** Objects may be thrown from mower. For your safety.
 - a. DO NOT open the cover while the mower blades are turning. Shut off the engine before opening the inspection door or removing the grass chute.
 - b. Be sure the complete Collection System is in place (cover secure and grass chute connected) before operating the mower.
 - c. DO check the cover and bags frequently for wear and tear. Replace with the new cover for safety protection.
7. For best results when mowing grass: Set the mower to cut from 1 to 2 inches of grass. If grass is exceptionally tall, set your mower as high as possible for first cutting. Lower cutting height at succeeding cuttings until proper height is reached. It may be necessary to mow tall grass at a slower tractor speed.



WARNING

Before raising cover, disengage mower, turn off engine and remove the key. Do not remove catcher tube from adapter or bag while mower is running.

Safety Decals



This bag is subject to deterioration and wear during normal usage. Inspect the bag periodically for tears, holes or weak spots and replace with a new bag meeting manufacturers durability requirements.



NOTE: To clean clear mid-tube on Deluxe Grass Catcher wash with warm water and mild soap or detergent. Use a soft clean sponge or cloth. DO NOT use abrasive, alkaline, or petroleum based cleaners.

Assembly

PARTS IDENTIFICATION

NOTE

If the mower is a 36 inch mower, check the I.D. plate. If Mfg. No. is not 1690891, you will need Baffle Kit 1685239. 30 inch mowers do not require a baffle kit.

Remove the parts from the carton and use the following chart to identify them. This chart refers to illustrations in the assembly procedure which begins on the next page.

In the chart below, if the quantity is more than one, number is in parenthesis. Use the Standard Fastener I.D Chart at back of manual to identify. You may want to leave the fasteners in the two bags, and select the parts you need as you follow the Assembly procedure. Or, you may arrange them by size and type before you begin.

Part Name	Shown in Step	Part Name	Shown in Step
Blade Lifts* (2) Capscrew, 1/4-20 x 5/8 (4) Lockwasher, 1/4 (4) Nut, 1/4 (4)	1	Adapter** Push Nuts (2) Washer (3) Lockwasher, 3/8 (Use 2 existing) Nuts, 3/8 (use 2 existing)	2,j
Adapter* Nut, 5/16 (2) Lockwasher, 5/16 (2) Washer, Special (2) Pushnut, (2) Nut, 3/8 Lockwasher, 3/8 Washer, 13/32 Bolt, Carriage, 3/8 x 3/4	1,h	Supports (2) Nut, 5/16 (2) Lockwasher, 5/16 (2) Capscrew, 5/16 x 1 (2) Capscrew, 5/16 x 1-1/2 (2) Spacer (2)	3
Baffle** Retainer Nut, 1/4 Whizlock Screw, 1/4 x 1/2 Bolt, Carriage, 1/4 x 5/8 Lockwasher, 1/4 Nut, 1/4	2,e	Frame Bolt, Carriage, 5/16 x 1 Wing Nut	4
Discharge Baffle** Screw, Self Tapping, 5/16-18 x 1/2 Bolt, Carriage, 3/8-16 x 7/8 Bolt, Carriage, 5/16-18 x 7/8 Washer, 1/4 Washer, 3/8 Lockwasher, 5/16 Lockwasher, 3/8 Nut, 5/16-18 Nut, 3/8-16 Bolt, Carriage, 3/8-16 x 7/8 Push Nut	2,g	Cover Pin (2) Clips (2)	8
Blades** (2)	2,h	Tube	6
*30" Mower **36" Mower		Elbow Bracket Bolt, Carriage, 5/16 x 7/8 (2) Lockwasher, 5/16 (2) Nut, 5/16 (2)	5
		Elbow	7
		Bag Brackets (2) Bolts, Carriage, 5/16 x 7/8 (2) Lockwasher, 5/16 (2) Nut, 5/16 (2)	9
		Bag (2)	9
		Counterweight Capscrew, 5/16-18 x 1 (2) Washer, 11/32 (2) Lockwasher, 5/16 (2) Nut, 5/16 (2)	10

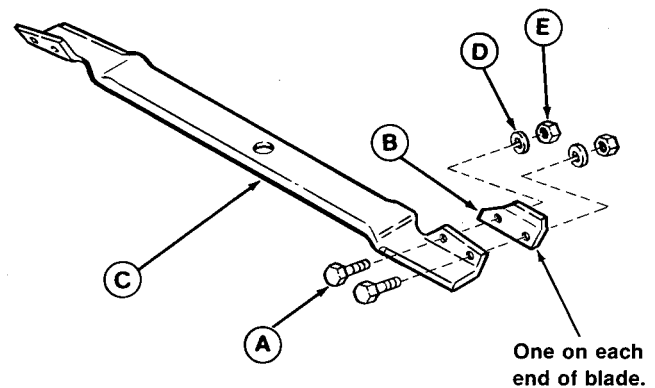
PROCEDURE



WARNING

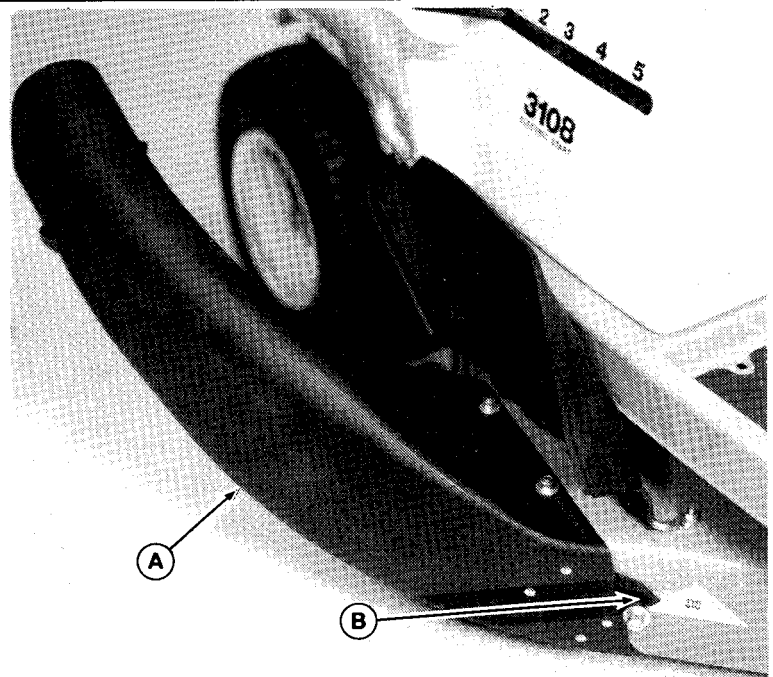
Do not handle the mower blades with bare hands. Avoid touching the cutting edge. Careless or improper handling may result in serious injury.

1. For 30" mowers install blade lifts and adapter as described in steps a thru i. For 36" mowers go to step 2 on page 4.
 - a. Place the mower in highest cutting height.
 - b. Set the parking brake.
 - c. Place wood blocks (2" x 4" or 4" x 4") under the front tires to provide more clearance to install the lifts.
 - d. Place a wood block under the front edge of mower deck to prevent mower from falling in case height control lever is accidentally knocked out of latched position.
 - e. Install the lifts on blade on discharge side as shown. Then, remove the wood blocks.



- A. Capscrew, 1/4-20 x 5/8
- B. Lift
- C. Blade
- D. Lockwasher, 1/4
- E. Nut, 1/4

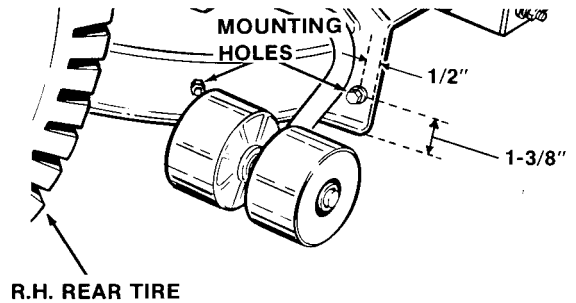
- f. Raise the deflector to locate two holes at top of opening. Insert two 5/16 x 3/4 carriage bolts from bottom and install pushnuts to hold in place.
- g. If there is no hole to front of adapter opening, a 13/32 inch hole must be drilled and then filed square. To locate the hole, mount the adapter on two top screws and mark the location of the front hole.
- h. Place adapter onto two screws at top. On the two top screws, install plain washers, 5/16 spring lockwashers and 5/16 nuts.
- i. At front hole, insert 3/8 x 3/4 carriage bolt from inside deck. Then install 13/32 plain washer, 3/8 lockwasher and 3/8 nut.



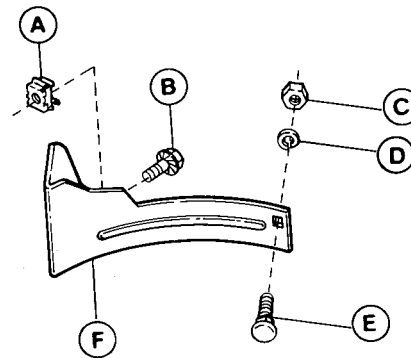
- A. Adapter
- B. Front Hole

2. For 36" mowers install baffles, adapter, and blade as described in steps a thru j. For 30" mowers go to step 3 on page 6.

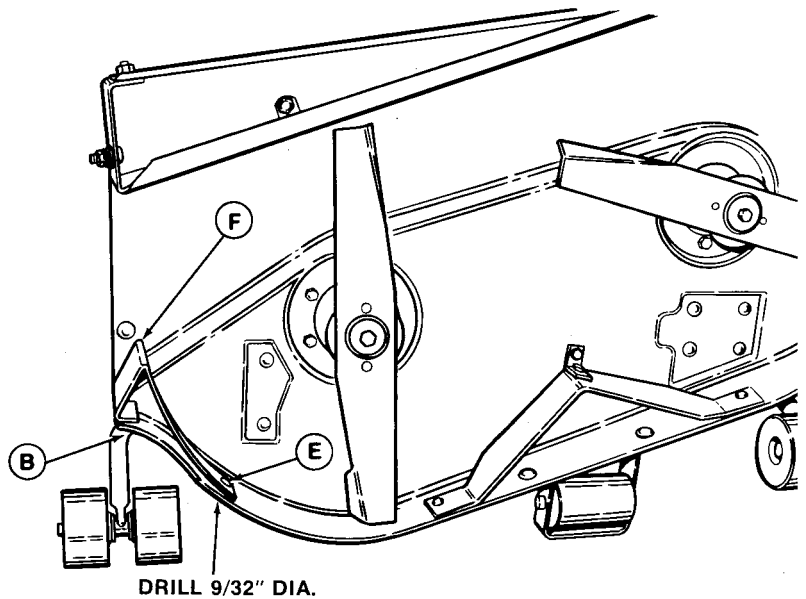
- a. Remove mower from tractor.
- b. Remove the mower discharge deflector. Carriage bolts will be re-installed.
- c. If mower does not have mounting holes for the baffle, drill a 9/32" hole in housing 1/2" from edge of opening and 1-3/8" from bottom as shown. (The second hole will be drilled later).



- d. Make sure the retainer nut (A) is in the baffle.
- e. Install the baffle into deck with the whizlock screw (B). If the second hole must be drilled, position the baffle parallel with bottom edge of mower deck. Also turn blade to make sure there is no interference. Mark the spot and drill a 9/32" hole as shown below.
- f. Install the carriage bolt (E), lockwasher and nut.

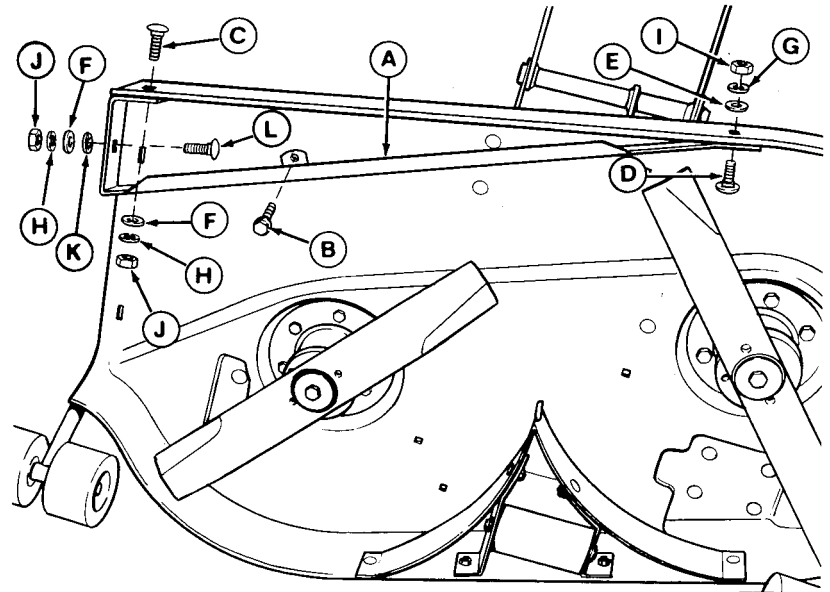


- A. Retainer Nut
- B. Whizlock Screw
- C. Nut
- D. Lockwasher
- E. Bolt, Carriage
- F. Deflector Baffle



g. Install the discharge baffle (A) as shown. Insert bolt (L) and install push nut (K) fully onto threads to hold bolt (L) in place. (The lockwasher (F), washer (H) and nut (J) will be used to install adapter).

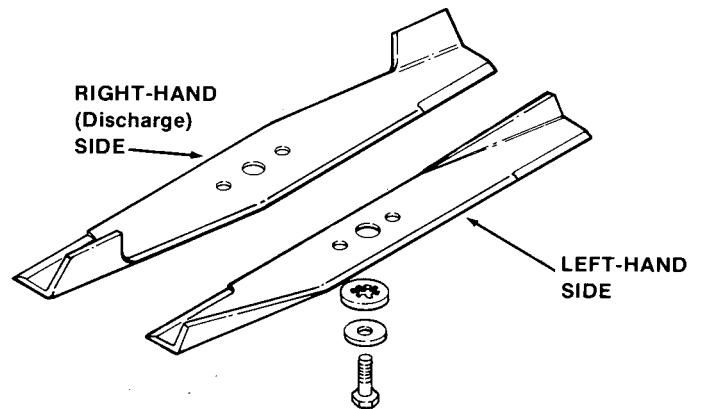
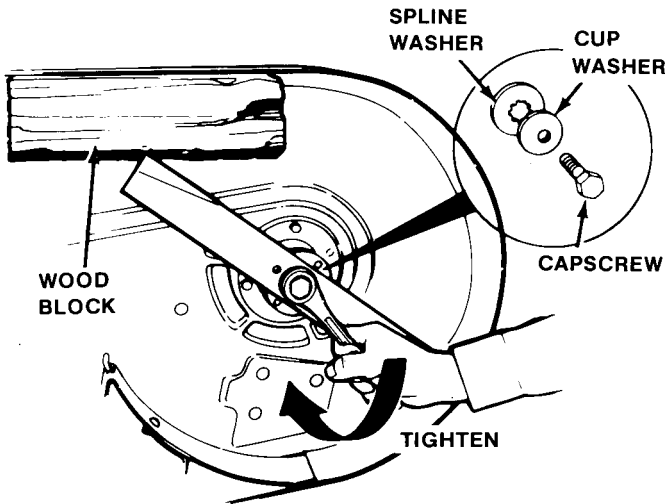
- A. Baffle
- B. Screw, Self Tapping, 5/16-18 x 1/2
- C. Bolt, Carriage, 3/8-16 x 3/4
- D. Bolt, Carriage, 5/16-18 x 3/4
- E. Washer, 1/4
- F. Washer, 3/8
- G. Lockwasher, 5/16
- H. Lockwasher, 3/8
- I. Nut, 5/16-18
- J. Nut, 3/8-16
- K. Push Nut
- L. Bolt, Carriage, 3/8-16 x 3/4



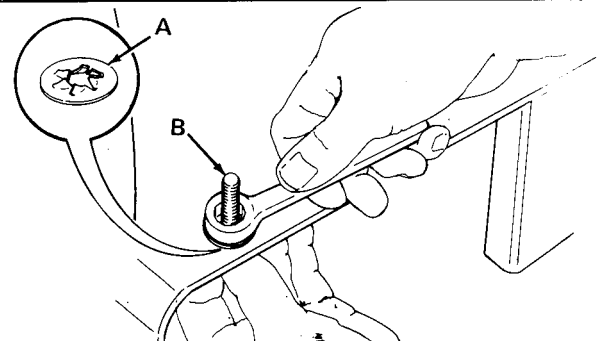
h. Remove the mower blades and install the new blades with tabs pointing up (toward mower deck). Install the washers and capscrew. Make sure the spline washer engages the shaft splines. Make sure the cup washer is installed concave side up (toward mower deck). Block the blade and torque capscrew to 60 ft. lbs. Note the difference between the left-hand and right-hand blades.

WARNING
Blade mounting capscrews must be installed with the cup washer and spline washer and then securely tightened. Torque blade mounting capscrews to 60 ft. lbs. (81 N.m).

WARNING
Do not handle the mower blades with bare hands. Avoid touching the cutting edge. Careless or improper handling of blades may result in serious injury.

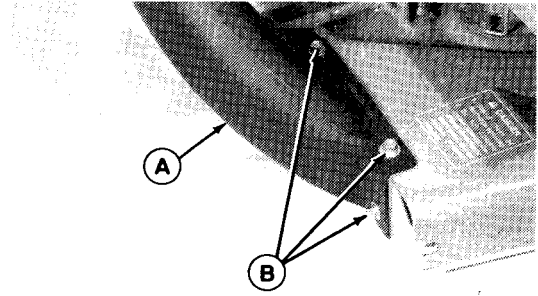


i. Re-install the deflector carriage bolts and the supplied push nuts.

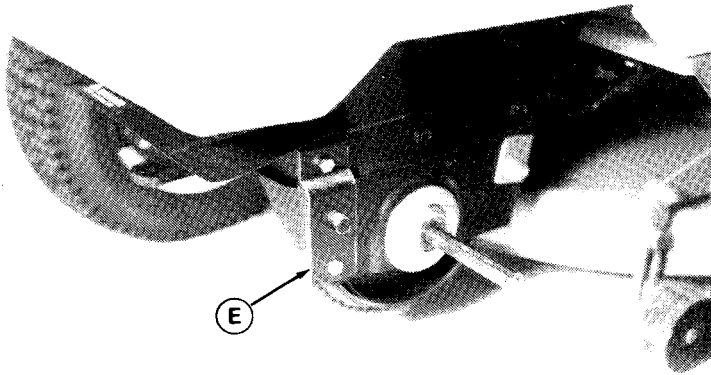


- j. Place the adapter onto the three screws and install 3/8 plain washers, 3/8 lock-washers and 3/8 nuts.

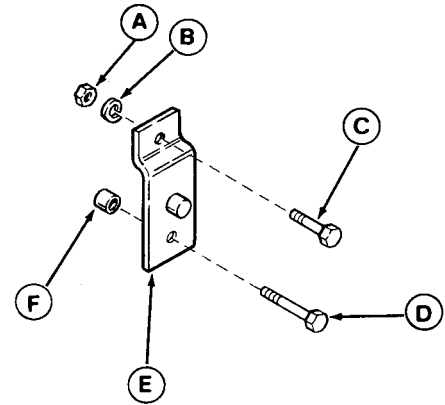
A. Adapter
B. Hardware



3. Attach support to each side of frame. (Discard the original self-tapping screws).



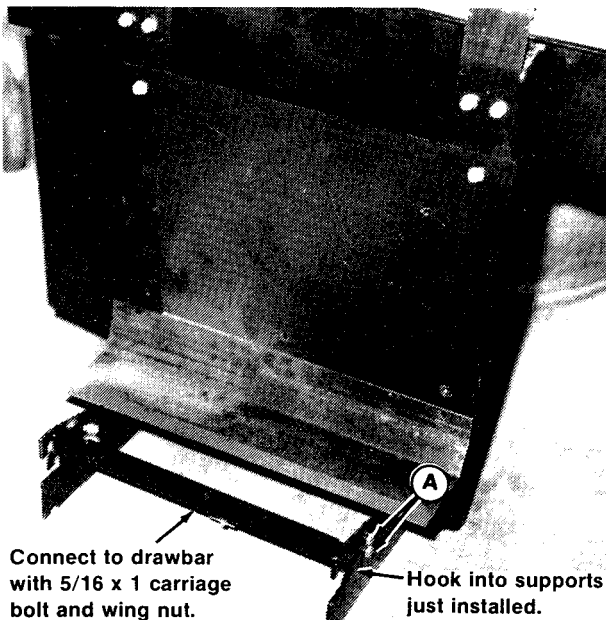
WHEEL REMOVED FOR CLARITY



A. Nut, 5/16
B. Lockwasher, 5/16
C. Cap screw, 5/16 x 1
D. Cap screw, 5/16 x 1-1/2
E. Support
F. Spacer

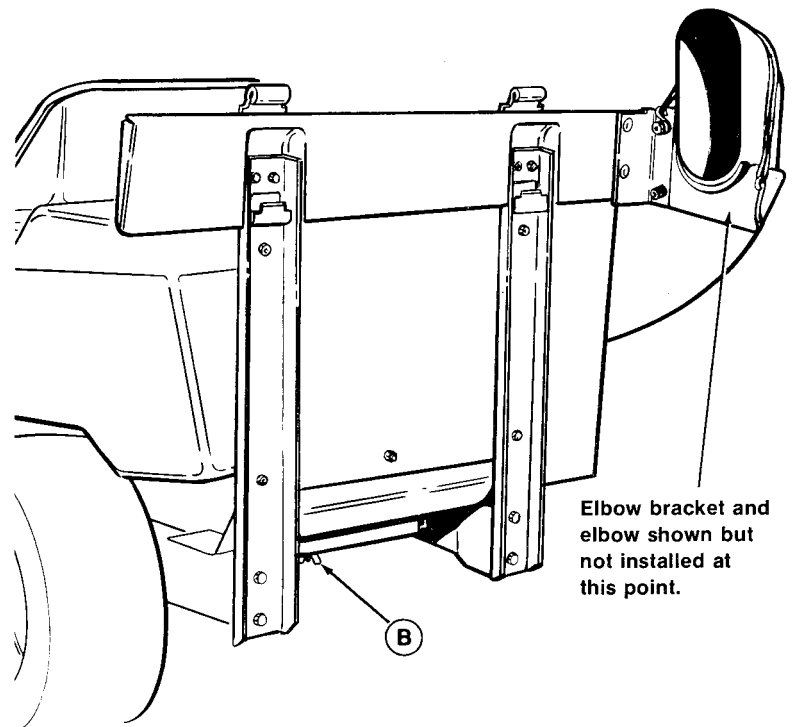
4. Position frame onto back of rider hooking onto supports installed in step 3. Loosen the four brace screws (A) and force frame downward so that slots are fully down on supports.

Install 5/16 x 1 carriage bolt and wing nut (B) securing frame to drawbar. Tighten the four brace screws.



Connect to drawbar with 5/16 x 1 carriage bolt and wing nut.

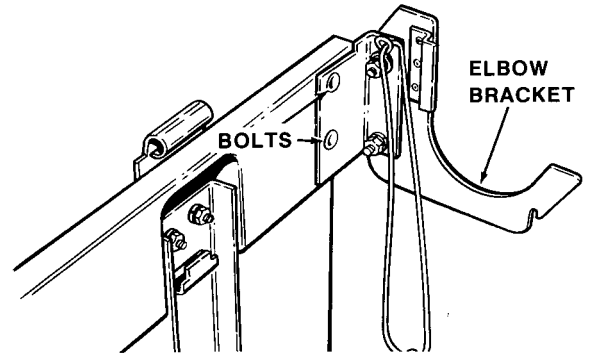
Hook into supports just installed.



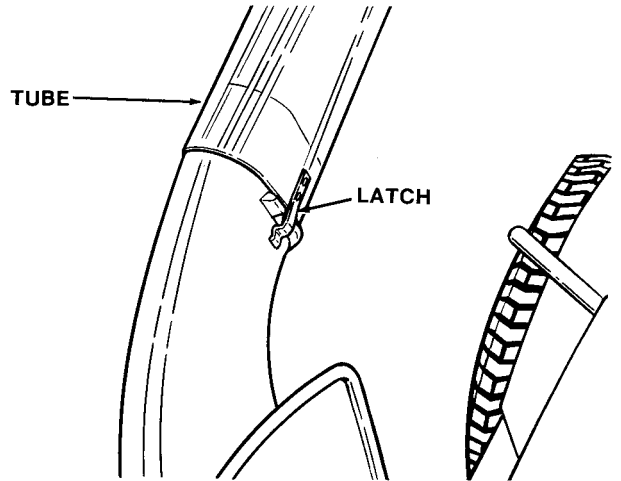
Elbow bracket and elbow shown but not installed at this point.

A. Brace Screws
B. Wing Nut

5. Connect the elbow bracket to the right-hand side of frame by inserting the 5/16 x 7/8 carriage bolts from rear and then installing 5/16 lockwashers and nuts.

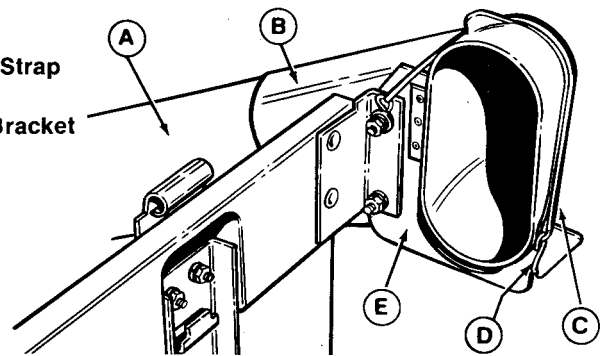


6. Place tube onto adapter so it latches into places.



7. Insert tube (A) into elbow, then insert the elbow (B) into the elbow bracket (E). Pull the rubber strap (C) over the elbow and hook as shown.

- A. Tube
- B. Elbow
- C. Rubber Strap
- D. Hook
- E. Elbow Bracket

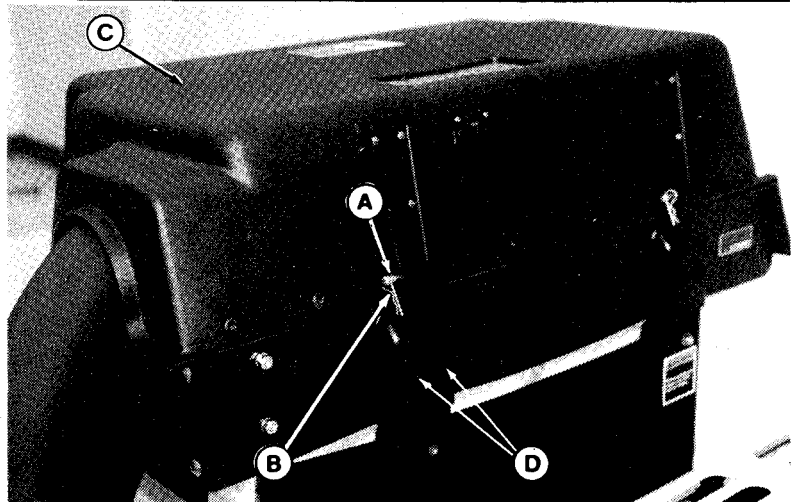


8. Place cover onto frame and align the hinges. Insert pins (A) and install clips (B).

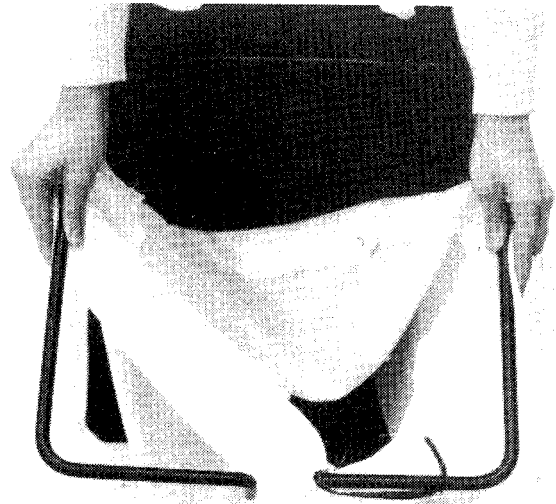
NOTE

The front edge of cover must seal against cross member. Loosen the four nuts (D), adjust cover as necessary, then tighten the nuts.

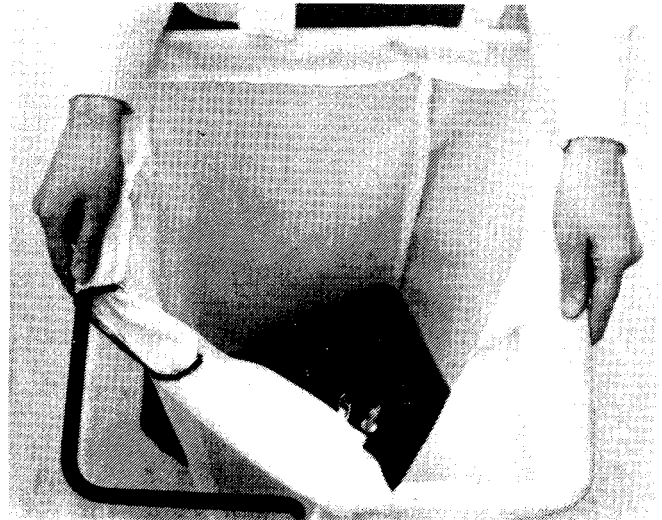
- A. Pin
- B. Clip
- C. Cover
- D. Nuts



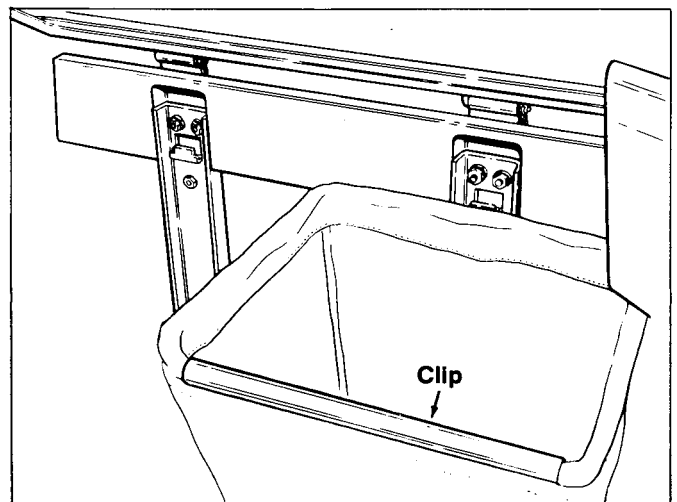
9. To install grass bag on hanger insert one end of hanger into hole in seam of bag as shown. Then, continue routing bag around until the two ends of hanger extend through hole in seam of bag. Be sure the handle is on bottom of bag. (If handle is inside the bag, the bag is inside-out.)



Direction →

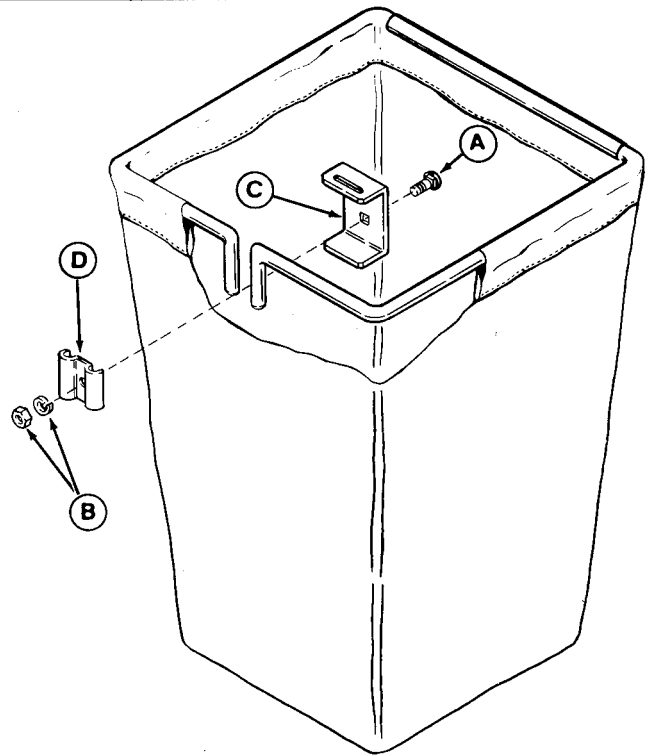
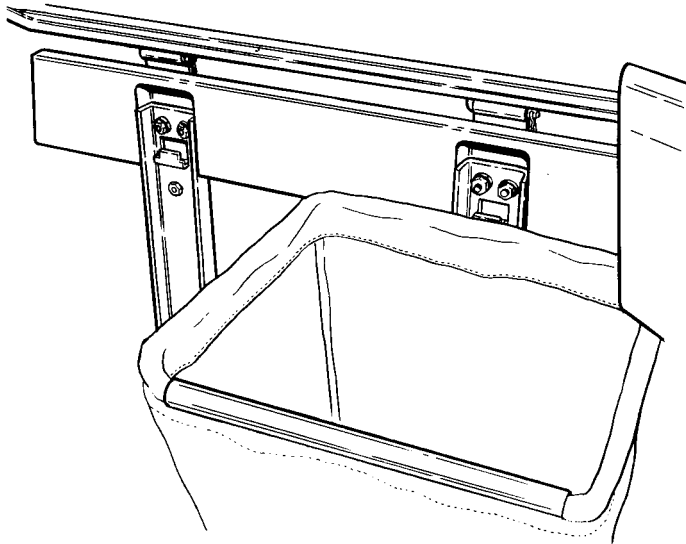


Position the white clip along back edge of bag.

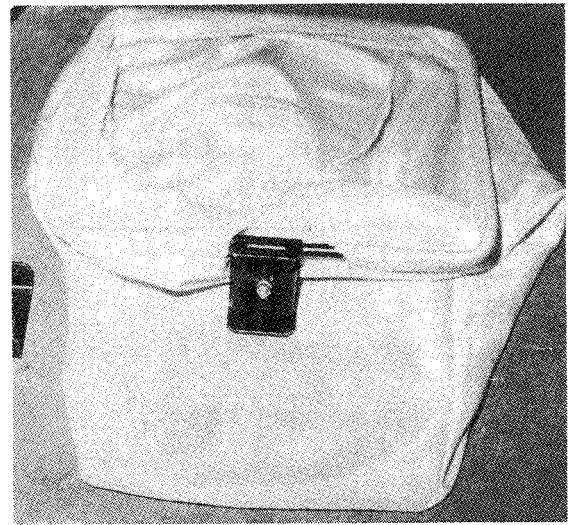


10. Connect the brackets to the bag hangers with the slotted end of bracket to top of bag. The cloth is shown cut away for clarity only. Be sure brackets are outside the bag as shown in photo.

Hang the bag as shown below. If bag does not hang straight, loosen nut (B). Twist the bag hoop as necessary then tighten nut.

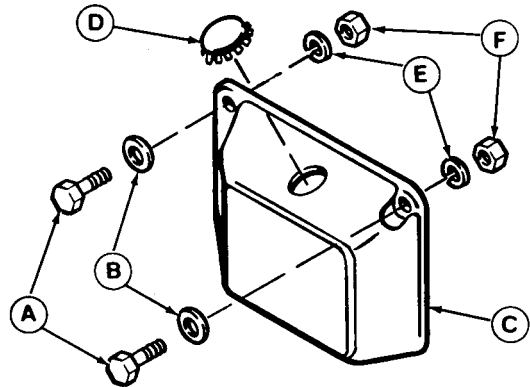


- A. Bolt, Carriage, 5/16 x 7/8
- B. Lockwasher and nut, 5/16
- C. Slotted Bracket
- D. Bracket



11. The counterweight must be filled with wet sand. To do this, remove the plug (D). Fill the counterweight with sand and add water till full. Reinstall the plug. The counterweight should weigh at least 20 lbs. There are two holes in the front frame. Use hardware shown to install counterweight to frame. Do not over-tighten the bolts.

- A. Capscrew, 5/16-18 x 1
- B. Washer, 11/32 x 1
- C. Counterweight
- D. Plug
- E. Lockwashers, 5/16
- F. Nut, 5/16



Operation and Storage

WARNING

For safety reasons grass and debris are to be removed only after engine is shut off, key removed, and all moving parts stopped.

WARNING

Before raising cover, shut off engine, remove key, and set parking brake.

BEFORE OPERATION

Clear the lawn of all sticks, stones, wire and other debris which may be caught or thrown by the mower blades.

Clean the tube with mild detergent (other products may damage tube). The flow of grass can be seen through the tube while mowing.

Check grass condition. If wet, wait until later in the day. If grass is wet, plugging may occur.

For efficient bagging, air circulation under the mower deck, through the chute and into the bag is very important. For this reason, you should remove grass and debris from underside of mower deck, discharge chute and screen inside cover.

The adapter, tube and elbow can be removed as an assembly for cleaning. Remove the nuts and washers that hold the adapter to mower deck and unhook rubber strap from elbow.

If desired, the bags can be lined with 30 gallon trash bags for easy disposal.

OPERATION

Grass should be cut often, and not too short. If grass is too long or lush it may be necessary to keep ground speed to a minimum or to cut only half the width to prevent clogging. If grass is high, operate with mower in high cutting position. Cut the grass again in lower cutting position, if desired.

To check if bags are full, open the inspection door located directly behind the operator's seat.

Always operate with throttle at full speed.

EMPTYING THE BAGS

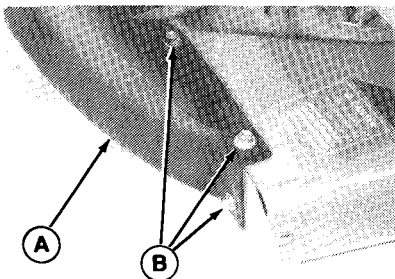
Raise the cover. If a plastic liner was not used, unhook the bag and turn upside down to empty (use handle on bottom).

If plastic liner was used, first tie up top of liner. Then, either pull the liner out, or, turn the bag upside down and allow the filled liner to slide out.

REMOVAL

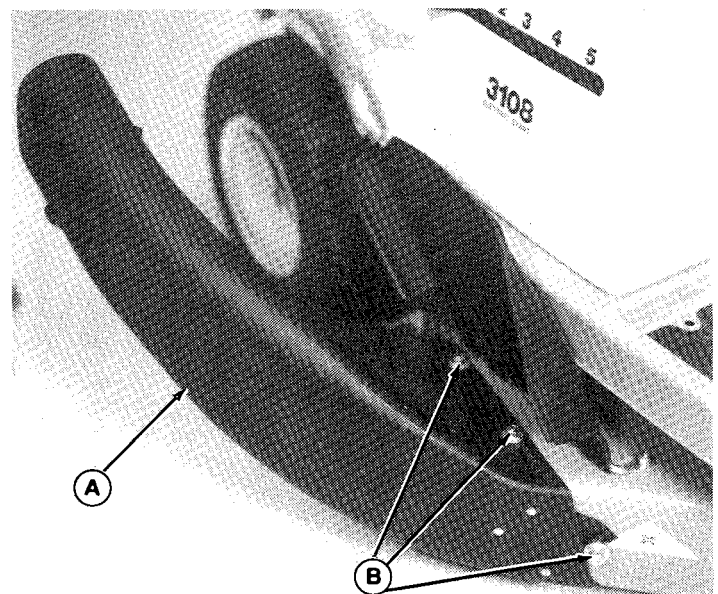
1. For 36" mowers, remove the three nuts, lockwashers and washers that secure the adapter. The washers and nuts at top of deck will be used in step 7 to install deflector.

For 30" mowers, remove two nuts and washers from top of adapter. Remove all hardware at front hole and store in adapter to prevent loss.



36" MOWER

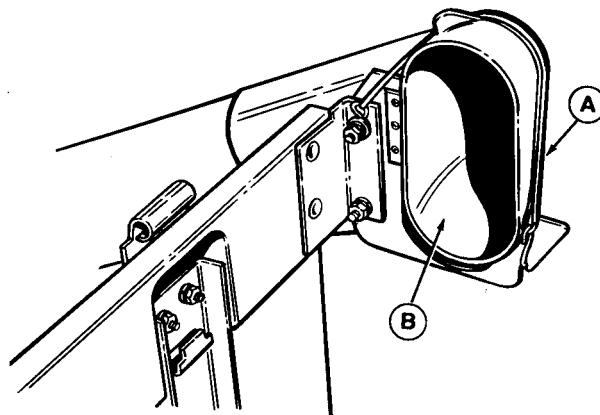
A. Adapter
B. Hardware



30" MOWER

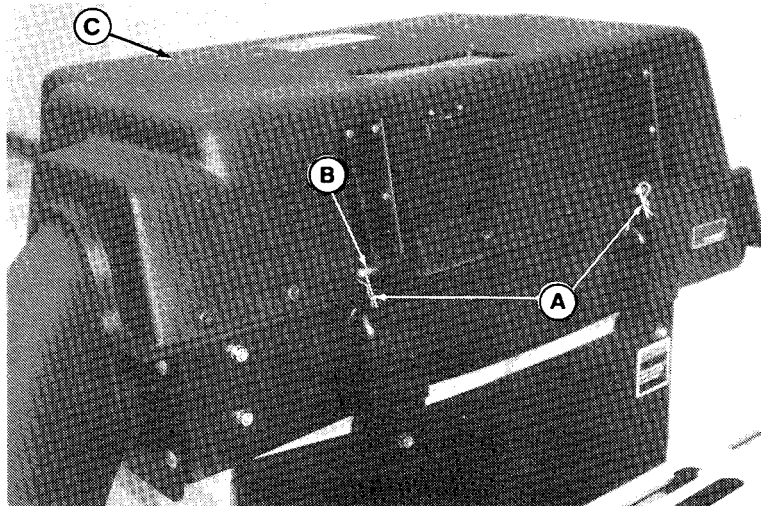
2. Raise the cover and disconnect the rubber strap that secures the elbow.
3. Remove the adapter, tube and elbow as an assembly.

A. Rubber Strap
B. Elbow

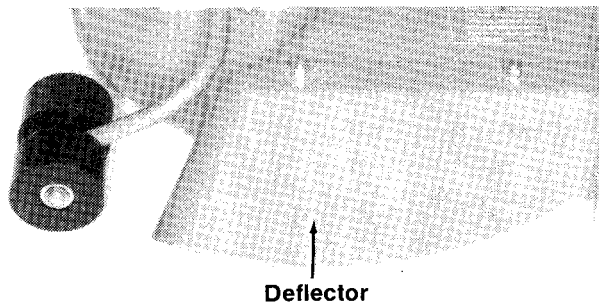


4. Remove the bags. Remove the cover by removing pins and clips. Store with cover to prevent loss.
5. Disconnect the frame from the drawbar by removing the carriage bolt and wing nut.
6. Lift the frame off the tractor.

A. Pins
B. Clips
C. Cover



7. For 36" mowers, install the mower discharge deflector with the two plain washers, lock-washers, and nuts.



WARNING

Never operate mower without the grass catcher unless discharge deflector is installed.

INSTALLATION

To install the grass catcher, reverse the removal process.

STORAGE

1. Clean the grass catcher thoroughly.
2. If paint has been scratched on metal parts,

coat with paint or oil.

3. Store in a dry area. Hang the bags to dry. Always store away from moisture.

Troubleshooting

This section provides troubleshooting instructions for the more common and easily corrected problems. See Table 1. For problems not covered, see your dealer.



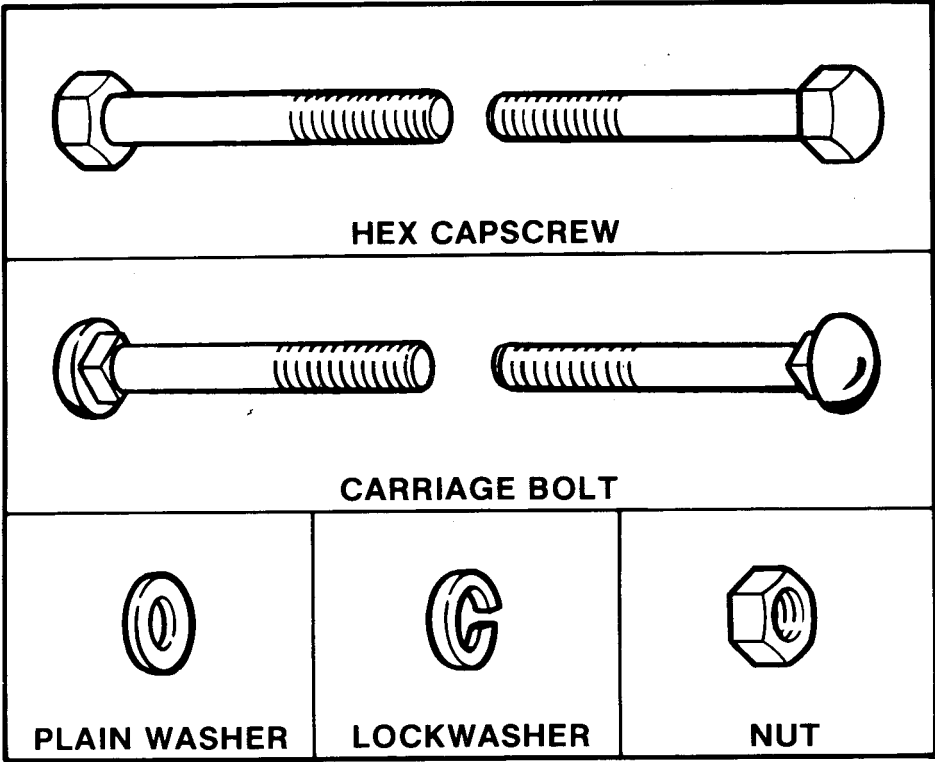
WARNING

To avoid serious injury, perform maintenance on the grass catcher only after stopping the rider engine and waiting for all moving parts to come to a complete stop. Always remove the ignition key before beginning the maintenance to prevent accidental starting of the engine. Disconnect the spark plug wire and fasten away from plug.

Problem	Cause/Remedy
<p>1. Leaves and grass not being completely picked up.</p>	<ul style="list-style-type: none"> A. Engine speed too slow. Run at full throttle. B. Ground speed too fast. Use lower speed. C. Mower drive belt slipping. Increase belt tension per rider Operator's Manual. D. Discharge tube plugged. Stop engine and remove key. Then remove and unplug discharge tube. E. Using wrong mower blades. See Setup Instructions. F. Blades not tight. Torque to 60 ft. lbs. G. Mower not level. See Operator's Manual to level.
<p>2. Grass catcher discharge tube or mower plugs easily.</p>	<ul style="list-style-type: none"> A. Bags full. Empty bags. B. Grass too high. Reduce tractor ground speed, reduce cutting width or raise mower adjustment for the first pass, lower it for the second pass. C. Grass or leaves too wet. Wait for drier conditions. D. Build-up of cut grass in mower or adapter. Clean thoroughly. E. Screen in grass bag clogged. Remove cover and clean screens. F. Using wrong mower blades. See Setup Instructions.

Table 1. Troubleshooting

STANDARD FASTENER IDENTIFICATION CHART



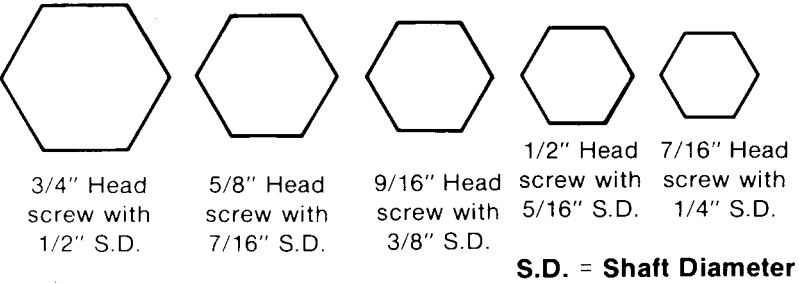
Hardware sizes are given in the illustrations throughout this manual.

If a washer or nut is identified as "washer, 1/2" or "nut, 1/2", this means the inside diameter is 1/2 inch.

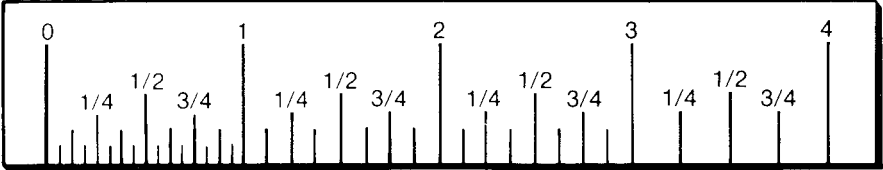
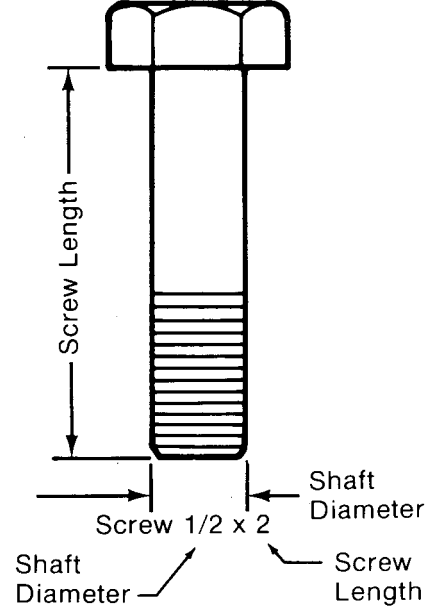
If a screw is identified as "screw, 1/2 x 2", this means the shaft diameter is 1/2 inch and the shaft of the screw is 2 inches long. If a screw is identified as "screw, 1/2-16 x 2", the number "16" means that the screw has 16 threads per inch.

HEX CAPSCREW IDENTIFICATION

Shown below are actual size hex heads for standard screw sizes. Example: a 1/4" screw has a 7/16 head and thus requires a 7/16 wrench. To measure length, use the scale below.



SAMPLE: SCREW IDENTIFICATION



WASHER AND NUT IDENTIFICATION

Place the washer or nut on the above scale to determine the inside diameter. The actual inside diameter can vary 1/16 inch. Use the scale for comparison.

SAMPLE: NUT IDENTIFICATION

